

PATENT COOPERATION TREATY

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PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference YCT-1000	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2004/019348	International filing date (<i>day/month/year</i>) 24 December 2004 (24.12.2004)	Priority date (<i>day/month/year</i>) 31 March 2004 (31.03.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report 29 November 2006 (29.11.2006)	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Yoshiko Kuwahara e-mail: pt07@wipo.int

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

TRANSLATION

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference YCT-1000		Date of mailing (day/month/year) FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/JP2004/019348	International filing date (day/month/year) 24.12.2004	Priority date (day/month/year) 31.03.2004	
International Patent Classification (IPC) or both national classification and IPC			
Applicant NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY			

<p>1. This opinion contains indications relating to the following items:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15px; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 15px; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Box No. I</td> <td>Basis of the opinion</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. II</td> <td>Priority</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. IV</td> <td>Lack of unity of invention</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. V</td> <td>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. VI</td> <td>Certain documents cited</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. VII</td> <td>Certain defects in the international application</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Box No. VIII</td> <td>Certain observations on the international application</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Box No. I	Basis of the opinion							Box No. II	Priority							Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability							Box No. IV	Lack of unity of invention							Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement							Box No. VI	Certain documents cited							Box No. VII	Certain defects in the international application							Box No. VIII	Certain observations on the international application						
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<p>2. FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p>																																																																								
<p>3. For further details, see notes to Form PCT/ISA/220.</p>																																																																								

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/019348

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material
 in written format
 in computer readable form
 - c. time of filing/furnishing
 contained in the international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2004/019348

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																			
<p>1. Statement</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 5px;">Novelty (N)</td> <td style="width: 60%; padding: 5px;">Claims <u>2, 4-10</u></td> <td style="width: 20%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims <u>1, 3</u></td> <td></td> <td style="padding: 5px;">NO</td> </tr> <tr> <td style="padding: 5px;">Inventive step (IS)</td> <td style="padding: 5px;">Claims _____</td> <td style="padding: 5px;">YES</td> </tr> <tr> <td></td> <td style="padding: 5px;">Claims <u>1-10</u></td> <td style="padding: 5px;">NO</td> </tr> <tr> <td style="padding: 5px;">Industrial applicability (IA)</td> <td style="padding: 5px;">Claims <u>1-10</u></td> <td style="padding: 5px;">YES</td> </tr> <tr> <td></td> <td style="padding: 5px;">Claims _____</td> <td style="padding: 5px;">NO</td> </tr> </table> <p>2. Citations and explanations:</p> <p>Document 1: JP, 2001-120545, A (Director General, Agency of Industrial Science and Technology, Hiroyuki KODAMA, Kabushiki Kaisha Takeshiba Engineering), 8 May, 2001 (08.05.01), Full text; all drawings (Family: none)</p> <p>Document 2: JP, 7-171149, A (Director General, Agency of Industrial Science and Technology, Hiroyuki KODAMA), 11 July, 1995 (11.07.95), Full text; all drawings (Family: none)</p> <p>Document 3: JP, 2000-210286, A (Kasei Optonix, Ltd.), 2 August, 2000 (02.08.00), Full text; all drawings (Family: none)</p> <p>Document 4: JP, 2002-34934, A (Matsushita Electric Industrial Co., Ltd.), 5 February, 2002 (05.02.02), Full text; all drawings (Family: none)</p> <p>Document 5: JP, 11-206721, A (Sanyo Electric Works, Ltd.), 3 August, 1999 (03.08.99), Full text; all drawings (Family: none)</p> <p>Document 6: JP, 2004-81632, A (Nihon University), 18 March, 2004 (18.03.04), Full text; all drawings (Family: none)</p> <p>Concerning claims 1 and 3:</p> <p>The subject matter of claim 1 does not appear to be novel or to involve an inventive step in view of document 1. Document 1 discloses the invention of an ultrasonic micturition desire sensor that has a constitution in which plural ultrasonic elements are arrayed in tandem in the direction of expansion of the bladder and that can be carried on the upper part of the abdomen.</p> <p>Concerning claim 2:</p> <p>The subject matter of claim 2 does not appear to involve an inventive step in view of documents 1 and 2. Document 2 (particularly see paragraph number [0036]) discloses that an ultrasonic micturition desire sensor is mounted in the median line directly above the pubic symphysis. It would be obvious for a person skilled in the art to select a position in the median line directly above the pubic symphysis as described in document 2 as the mounting location for the invention described in document 1.</p> <p>Concerning claims 4-7:</p> <p>The subject matters of claims 4-7 do not appear to involve an inventive step in view of documents 1 and 3. In the technical field of ultrasonic micturition desire sensors, document 3 (see the formula (1) particularly) discloses a constitution in which an arithmetic operation is performed to obtain the indicator PDM of urine volume from the distance Di between the anterior wall and posterior wall of the bladder, the echo intensity Pi of the posterior wall, and the maximum sensitivity Mk that varies with postural changes. It would be obvious for a person skilled in the art to apply the technique concerning the indicator described in document 3 to the invention described in document 1. Furthermore, the constitution in which a transducer, controlling circuit, amplifier, A/D converter and</p>			Novelty (N)	Claims <u>2, 4-10</u>	YES	Claims <u>1, 3</u>		NO	Inventive step (IS)	Claims _____	YES		Claims <u>1-10</u>	NO	Industrial applicability (IA)	Claims <u>1-10</u>	YES		Claims _____	NO
Novelty (N)	Claims <u>2, 4-10</u>	YES																		
Claims <u>1, 3</u>		NO																		
Inventive step (IS)	Claims _____	YES																		
	Claims <u>1-10</u>	NO																		
Industrial applicability (IA)	Claims <u>1-10</u>	YES																		
	Claims _____	NO																		

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

waveform memory is provided is well known in the technical field of ultrasonic micturition desire sensors (see Fig. 10 of document 2 for an example).

Concerning claims 8-10:

The subject matters of claims 8-10 do not appear to involve an inventive step in view of documents 1 and 3-6. In the technical field of ultrasonic micturition desire sensors, the constitution of a sensor that has a detachable storage medium, the constitution in which wireless data communication is carried out, and the constitution in which a triaxial acceleration sensor is provided are respectively well known (see documents 4, 5 and 6 respectively). In the inventions derived from documents 1 and 3, it would be obvious for a person skilled in the art to employ the respective inventions described above.